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IN 13 2005 IJ IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of

Job Cornelis Oostveen et al.

RECORD CARRIER
PLAYBACK APPARATUS AND
INFORMATION SYSTEM
COMPRISING A RECORD
CARRIER AND PLYBACK
APPARATUS

Serial No. 09/897,331

Filed: July 2, 2001

Group Art Unit: 2655

Examiner: Jorge L. C. Ortiz

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Sir:

This correspondence contains a Reply Brief under 37 C.F.R. §41.41 (formerly 37 C.F.R. §1.193) in response to the Examiner's Answer mailed April 8, 2005.

REPLY BRIEF. 37 C.F.R. §41.41

This reply brief is made in response to the Examiner's Answer mailed April 8, 2005.

I. The rejection under 35 U.S.C. §102

Claims 4-6 and 14-16 stand rejected under 35 U.S.C. §102 as being unpatentable U.S. Patent No. 6,069,870 issued to Maeda et al. (hereinafter referred to as *Maeda et al.*). The Examiner's position is that *Maeda et al.* anticipate the subject matter defined by appealed Claims 4-16 and 14-16.

Regarding appealed claim 4

In response to the appellants' arguments that *Maeda et al.* do not disclose, suggest or otherwise motivate a person skilled in the art to couple the phase of the second variations formed by the wobbling waveform of opposing walls of the track to the phase of the first variations formed by data recorded within the tracks, the examiner's answer presents a definition from the Merriam-Webster Dictionary for the term "coupled". The appellants respectfully point out that the specification to the present invention as originally filed contains a definition to the term "coupled" on page 5, line 34-page 6, line 4. The appellants respectfully assert that the definition supplied by the specification should be controlling.

The examiner's answer alleges that *Maeda et al.* disclose that a predetermined number of information marks 274 are coupled to a predetermined number of wobbles representing the address. The examiner's answer asserts that *Maeda et al.* on column 7, line 22 to column 8, lines 35, and Figures 3 and 27 that a predetermined number of wobbles of the borders 14, 15 of wobble track 270 correspond to a predetermined number of channel bits represented by the first variations of the information marks 274. The examiner's answer is reasserting that the address bits formed by the borders 14, 15 of tracks 270 are channel bits represented by information marks 274. The address bits formed by the wobble of borders 14, 15 in tracks 270 of *Maeda et al. Maeda et al.* are not channel bits

formed by information marks 274. Therefore, this rejection is based upon a clearly false pretense and should be reversed.

The appellants respectfully point out that column 7, line 22 to column 8, lines 35, and Figures 3 and 27 of *Maeda et al.* disclose that address bits are formed by the borders 14, 15 of tracks 270. The only phase relationship that is disclosed, or suggested by *Maeda et al.* exists between the borders 14, 15 of tracks 270. The entire discussion contained on column 7, line 22 to column 8, lines 35 of *Maeda et al.* relates to address bits formed by the borders 14, 15 of tracks 270. The only mention of the information marks 274 within the discussion on column 7, line 22 to column 8, lines 35 of *Maeda et al.* is on column 8, lines 14-21 wherein it is stated that it is possible to read address information from borders 14, 15 of groove track 270 simultaneously within information marks 274 to confirm that beam spot 1 is in groove track 270. There is no disclosure, or suggestion, within *Maeda et al.* for coupling the phase of the second variations represented by the borders 14, 15 of tracks 270 to the phase of the first variations represented by the information marks 274.

The examiner's answer references Figure 3 of *Maeda et al.* as an example of the phase relationship between the first variations represented by the information marks 274 and the wobbling waveforms formed by borders 14, 15 of track 270. Figure 3 of *Maeda et al.* illustrates that a predetermined number of waveforms (in Figure 3 there are five) of borders 14, 15 coincides to a single address bit. No discussion related to information marks 274 is presented in Figure 3 of *Maeda et al.*

Figure 27 of *Maeda et al.* illustrates the first variations represented by the information marks 274 formed in land and groove tracks 270, 271, 272, 273. As clearly seen in Figure 27, there is no phase relationship that can be discerned between the information marks 274 and the second variations formed by the borders 14, 15 of land and groove tracks 270, 271, 272, 273

Regarding appealed claim 5

In response to the appellants' arguments that *Maeda et al.* do not disclose,

suggest the second variations having either a first or a second phase with respect to the first variations, the examiner's answer alleges that *Maeda et al.* disclose the phase of the second variation being coupled to the phase of the first variations. The examiner's answer alleges that column 7, line 22 to column 8, line 35 of *Maeda et al.* discloses that the wobbles of borders 14, 15 forming the second variations are coupled to the phase of the first variations (information marks 274). The appellants respectfully point out that column 7, line 22 to column 8, line 35 of *Maeda et al.* discloses that the phase within the wobbles of borders 14, 15 are coupled to each other. The appellants respectfully point out that in Figure 3 of *Maeda et al.*, the five wobbling waveform periods correspond to a single address bit and that there is no disclosure or suggestion for coupling the phase of the wobbling waveforms to information bits recorded within the track.

Regarding appealed claim 6

In response to the appellants' arguments that Maeda et al. do not disclose, suggest the first or second phase of the second variations with respect to the first variations differ by 180°, the examiner's answer alleges that Maeda et al. disclose the phase of the second variation differing by 180° within respect to the first variation is disclosed on column 7, line 22 to column 8, line 35 of Maeda et al. The appellants respectfully point out that column 7, line 22 to column 8, line 35 of Maeda et al. discloses that the second variation pattern formed by the borders 14. 15 of tracks 270 within Maeda et al. are 180° out of phase for a logical "0" address bit versus a logical "1" address bit. The appellants respectfully point out that Maeda et al. clearly disclose that opposite borders 14 and 15 should invariably have an orthogonal relationship and be set to lag or lead each other by 90° (see column 7, lines 47-53). Therefore, the phase relationships of the opposite borders 14, 15 as taught by Maeda et al. are never 180° out of phase with each other. There is no disclosure, or suggestion, for the first and second phase of the second variations formed by the wobbling of borders 14, 15 within Maeda et al. to be out of phase by 180°

Figure 3 of Maeda et al. illustrates five wobbling waveform periods that

correspond to a single address bit with no disclosure or suggestion being supplied for coupling the phase of the wobbling waveforms to information bits recorded within the track. There is no disclosure or suggestion within *Maeda et al.* for the second variations to have a first or second phase that differ by 180 degrees with respect to the phase of the first variations represented.

Regarding appealed claim 14

In response to the appellants' arguments that Maeda et al. do not disclose, suggest a predetermined variation pattern in the second variations allows sampling of said second variations at twice the frequency of said second variations, the examiner's answer alleges that Maeda et al. inherently allows sampling of the second variation patter at twice the sampling frequency of the second variation pattern. The position taken by the examiner's response is that because the first and second phase of the second variation pattern of Maeda et al. can differ by 180° that the second variation pattern can be sampled at twice the frequency of the second variation pattern. The appellants respectfully point out that the second variation pattern formed by the borders 14, 15 of tracks 270 within Maeda et al. are 180° out of phase for a logical "0" address bit versus a logical "1" address bit. The appellants respectfully point out that Maeda et al. clearly disclose that opposite borders 14 and 15 should invariably have an orthogonal relationship and be set to lag or lead each other by 90° (see column 7, lines 47-53). Therefore, the phase relationships of the opposite borders 14, 15 as taught by Maeda et al. are never 180° out of phase with each other. The phase relationships between opposite borders 14 and 15 are always 90°. Accordingly, the analysis provided in the examiner's answer is flawed. The rejection to appealed claim 14 does not correctly provide any indication how the second variations caused by the wobbles within borders 14, 15 of the record carrier disclosed by Maeda et al. could possibly be sampled at twice the frequency of the second variations. Maeda et al. do not disclose, suggest or mention in any way whatsoever that a predetermined variation pattern in the second variations allows sampling of said second variations at twice the frequency of said second variations.

Regarding appealed claim 15

In response to the appellants' arguments that *Maeda et al.* do not disclose, suggest that the second variations have a first and a second phase such that a predetermined relationship between the first and the second phase coincides to a start of frame, the examiner's answer alleges that *Maeda et al.* disclose that tracks divided into blocks including frames of a predetermined number of bits and that Figure 2 shows the predetermined relationship between the first and second phase that coincides to a start of frame. The appellants, respectfully, point out the Figure 2 of *Maeda et al.* do not disclose, suggest or mention in any way, whatsoever, that the second variations have a first and a second phase such that a predetermined relationship between said first and said second phase coincides to a start of frame.

The examiner's answer further states that Figure 3 and column 8, lines 36-65 of *Maeda et al.* disclose that the two phases of the second variations (the wobbling of borders 14, 15) coincide with a zero crossing. The appellants, respectfully, point out that there are no zero crossings discussed with respect to Figure 3 or in column 8, lines 36-65 of *Maeda et al.* The appellants respectfully, point out that *Maeda et al* do not disclose, suggest or mention in any way whatsoever that the second variations have a first and a second phase such that a predetermined relationship between said first and said second phase coincides to a start of frame.

Regarding appealed claim 16

In response to the appellants' arguments that *Maeda et al.* do not disclose, suggest that the second variations have a first and a second phase such that a predetermined relationship between the first and the second phase coincides to a zero crossing, the examiner's answer alleges that *Maeda et al.* disclose that tracks divided into blocks including frames of a predetermined number of bits and that Figure 2 shows the predetermined relationship between the firs and second phase that coincides to a start of frame. The appellants, respectfully, point out the Figure 2 of *Maeda et al.* do not disclose, suggest or mention in any way, whatsoever, that

the second variations have a first and a second phase such that a predetermined relationship between said first and said second phase coincides to a start of frame.

The examiner's answer further states that Figure 3 and column 8, lines 36-65 of *Maeda et al.* disclose that the two phases of the second variations (the wobbling of borders 14, 15) coincide with a zero crossing. The appellants, respectfully, point out that there are no zero crossings discussed with respect to Figure 3 or in column 8, lines 36-65 of *Maeda et al.* The appellants respectfully, point out that *Maeda et al* do not disclose, suggest or mention in any way whatsoever that the second variations have a first and a second phase such that a predetermined relationship between said first and said second phase coincides to a zero crossing.

II. The rejection under 35 U.S.C. §103

Claims 1-3, 7 and 8-13 stand rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 5,930,210 issued to Timmermans et al. (hereinafter referred to as *Timmermans et al.*) in view of previously discussed *Maeda et al.* (U.S. Patent No. 6,069,870). The Examiner's position is that it would have been within the scope of one of ordinary skill in the art to modify the teaching of *Timmermans et al.* to couple the phase of the second variations in the wobbling waveforms to the phase of first variations representative of the information recorded within the tracks in view of the teaching of *Maeda et al.*

Regarding appealed claim 1

The examiner's answer presents a definition from the Merriam-Webster Dictionary for the term "coupled". The appellants respectfully point out that the specification to the present invention as originally filed contains a definition to the term "coupled" on page 5, line 34-page 6, line 4. The appellants respectfully assert that the definition supplied by the specification should be controlling.

The examiner's answer alleges that the combination of *Timmermans et al.* with *Maeda et al.* renders obvious the subject matter defined by appealed claim 1 for an information system having a record carrier having information marks along

The examiner's answer alleges that the combination of Timmermans et al. with Maeda et al. renders obvious the subject matter defined by appealed claim 1 for an information system having a record carrier having information marks along a track and exhibiting first variations caused by existence and nonexistence of the information marks along the track, and second variations caused by variations associated with the information marks; wherein the phase of the second variations is coupled to the phase of the first variations, the examiner's answer alleges that Maeda et al. disclose that a predetermined number of information marks 274 are coupled to a predetermined number of wobbles representing the address. The examiner's answer asserts that Maeda et al. on column 7, line 22 to column 8, lines 35, and Figures 3 and 27 that a predetermined number of wobbles of the borders 14, 15 of wobble track 270 correspond to a predetermined number of channel bits represented by the first variations of the information marks 274. The examiner's answer is reasserting that the address bits taught by Maeda et al. as being formed by the borders 14, 15 to tracks 270 are channel bits represented by information marks 274. Therefore, this rejection is based upon a clearly false pretense and should be reversed.

The appellants respectfully point out that column 7, line 22 to column 8, lines 35, and Figures 3 and 27 of *Maeda et al.* disclose that address bits are formed by the borders 14, 15 of tracks 270. The only phase relationship disclosed, or suggested by *Maeda et al.* exists between the borders 14, 15 of tracks 270. The entire discussion contained on column 7, line 22 to column 8, lines 35 of *Maeda et al.* relates to address bits formed by the borders 14, 15 of tracks 270. The only mention of the information marks 274 within the discussion on column 7, line 22 to column 8, lines 35 of *Maeda et al.* is on column 8, lines 14-21 wherein it is stated that it is possible to read address information from borders 14, 15 of groove track 270 simultaneously within information marks 274 to confirm that beam spot 1 is in groove track 270. There is no disclosure, or suggestion, within *Maeda et al.* for coupling the phase of the second variations represented by the borders 14, 15 of tracks 270 to the phase of the first variations represented by the information marks 274.

The examiner's answer admits that *Timmermans et al.* do not disclose the phase of the second variations being coupled to the phase of the first variations.

Simply put, there is no disclosure, or suggestion, within *Timmermans et al.* or *Maeda et al.*, either alone or in combination, for coupling the phase of the second variations represented by the wobbling waveforms to the phase of the first variations represented by the information marks. Furthermore, there is no suggestion or motivation provided by either *Maeda et al.* or *Timmermans et al.* to modify the teachings of *Maeda et al.* or *Timmermans et al.* to create an information system with a record carrier having the phase of the second variations being coupled to the phase of the first variations as defined by appealed claim 1.

Regarding appealed claim 2

The examiner's answer address appealed claim 2 in the same section as appealed claim 1, however, the subject matter of appealed claim 2 is not addressed by this same section. The subject matter of appealed claim 2 is mentioned only in a repetition of the rejection contained within the Final Office Action.

Appealed claim 2 defines subject matter for an information system having a record carrier as defined by appealed claim 1 further characterized in that the second variations exhibit a modulation pattern representing a code, a detection unit includes a demodulation unit for recovering the code on the basis of at least one signal, and an activation unit for activating the enabling unit when the code is recovered. The rejection to appealed claim 2 alleges that *Timmermans et al.* teach the subject matter defined by appeal claim 2. The appellants would draw attention to page 7, lines 3-14 of the specification to the present invention wherein the binary code that the second variations as defined by appealed claim 2 are discussed. The modulation pattern exhibited by the second variations as defined by appealed claim 2 are inherently different from those of *Timmermans et al.* because appealed claim 2 defines subject matter wherein the second variation have a phase coupled to the phase of the first variations. There is no disclosure or suggestion within either *Maeda et al.* or *Timmermans et al.* to create an information system with a record carrier having the phase of the second variations,

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Regarding appealed claim 3

The examiner's answer address appealed claim 3 in the same section as appealed claim 1, however, the subject matter of appealed claim 3 is not addressed by this same section. The subject matter of appealed claim 3 is mentioned only in a repetition of the rejection contained within the Final Office Action.

Appealed claim 3 defines subject matter for an information signal is recoverable by means of a predetermined type of data processing, the code indicating the predetermined type of data processing to be used for recovering the information signal, and the playback apparatus further includes a unit for setting said recovery unit in a mode in which the predetermined type of data processing is performed when the information signal is recovered. The appellants respectfully submit that the definition of the phase of the second variations being coupled to the phase of the first variations alters the inherent meaning for the information signal being recoverable by means of a predetermined type of data processing, in a manner necessary to accommodate the definition of the phase of the second variations being coupled to the phase of the first variations. Therefore, *Timmermans et al.* do not disclose or suggest the predetermined type of data processing to be used for recovering the information signal as defined by appealed claim 3.

Regarding appealed claim 7

The examiner's answer presents a definition from the Merriam-Webster Dictionary for the term "coupled". The appellants respectfully point out that the specification to the present invention as originally filed contains a definition to the term "coupled" on page 5, line 34-page 6, line 4. The appellants respectfully assert that the definition supplied by the specification should be controlling.

The examiner's answer alleges that the combination of *Timmermans et al.* with *Maeda et al.* renders obvious the subject matter defined by appealed claim 7 for an information system having a record carrier having information marks along a track and exhibiting first variations caused by existence and nonexistence of the information marks along the track, and second variations caused by variations

associated with the information marks; wherein the phase of the second variations is coupled to the phase of the first variations, the examiner's answer alleges that *Maeda et al.* disclose that a predetermined number of information marks 274 are coupled to a predetermined number of wobbles representing the address. The examiner's answer asserts that *Maeda et al.* on column 7, line 22 to column 8, lines 35, and Figures 3 and 27 that a predetermined number of wobbles of the borders 14, 15 of wobble track 270 correspond to a predetermined number of channel bits represented by the first variations of the information marks 274. The examiner's answer is reasserting that the address bits taught by *Maeda et al.* as being formed by the borders 14, 15 to tracks 270 are channel bits represented by information marks 274. Therefore, this rejection is based upon a clearly false pretense and should be reversed.

The appellants respectfully point out that column 7, line 22 to column 8, lines 35, and Figures 3 and 27 of *Maeda et al.* disclose that address bits are formed by the borders 14, 15 of tracks 270. The only phase relationship disclosed, or suggested by *Maeda et al.* exists between the borders 14, 15 of tracks 270. The entire discussion contained on column 7, line 22 to column 8, lines 35 of *Maeda et al.* relates to address bits formed by the borders 14, 15 of tracks 270. The only mention of the information marks 274 within the discussion on column 7, line 22 to column 8, lines 35 of *Maeda et al.* is on column 8, lines 14-21 wherein it is stated that it is possible to read address information from borders 14, 15 of groove track 270 simultaneously within information marks 274 to confirm that beam spot 1 is in groove track 270. There is no disclosure, or suggestion, within *Maeda et al.* for coupling the phase of the second variations represented by the borders 14, 15 of tracks 270 to the phase of the first variations represented by the information marks 274.

The examiner's answer admits that *Timmermans et al.* do not disclose the phase of the second variations being coupled to the phase of the first variations.

Simply put, there is no disclosure, or suggestion, within *Timmermans et al.* or *Maeda et al.*, either alone or in combination, for coupling the phase of the second variations represented by the wobbling waveforms to the phase of the first

variations represented by the information marks. Furthermore, there is no suggestion or motivation provided by either *Maeda et al.* or *Timmermans et al.* to modify the teachings of *Maeda et al.* or *Timmermans et al.* to create an information system with a record carrier having the phase of the second variations being coupled to the phase of the first variations as defined by appealed claim 7.

Regarding appealed claim 8

In response to the appellants' arguments that Maeda et al. do not disclose, suggest the predetermined variation pattern allows sampling of the second variations at twice the frequency of the second variation, the examiner's answer alleges that Maeda et al. disclose the phase of the second variation differing by 180° within respect to the first variation. The appellants respectfully point out that column 7, line 22 to column 8, line 35 of Maeda et al. discloses that the second variation pattern formed by the borders 14, 15 of tracks 270 within Maeda et al. are 180° out of phase for a logical "0" address bit versus a logical "1" address bit. The appellants respectfully point out that Maeda et al. clearly disclose that opposite borders 14 and 15 should invariably have an orthogonal relationship and be set to lag or lead each other by 90° (see column 7, lines 47-53). Therefore, the phase relationships of the opposite borders 14, 15 as taught by Maeda et al. are never 180° out of phase with each other. Accordingly, the comments within the examiner's answer and this rejection are based upon a false premise and should be reversed. There is no disclosure or suggestion for a predetermined variation pattern that allows sampling of the second variations at twice the frequency of the second variations within Maeda et al. or Timmermans et al., either alone or in combination.

Regarding appealed claim 9

In response to the appellants' arguments that *Maeda et al.* do not disclose, suggest that the second variations have a first and a second phase such that a predetermined relationship between the first and the second phase coincides to a start of frame, the examiner's answer alleges that *Maeda et al.* disclose that tracks

divided into blocks including frames of a predetermined number of bits and that Figure 2 shows the predetermined relationship between the firs and second phase that coincides to a start of frame. The appellants, respectfully, point out the Figure 2 of *Maeda et al.* do not disclose, suggest or mention in any way, whatsoever, that the second variations have a first and a second phase such that a predetermined relationship between said first and said second phase coincides to a start of frame.

The examiner's answer further states that Figure 3 and column 8, lines 36-65 of *Maeda et al.* disclose that the two phases of the second variations (the wobbling of borders 14, 15) coincide with a zero crossing. The appellants, respectfully, point out that there are no zero crossings discussed with respect to Figure 3 or in column 8, lines 36-65 of *Maeda et al.* The appellants respectfully, point out that *Maeda et al* do not disclose, suggest or mention in any way whatsoever that the second variations have a first and a second phase such that a predetermined relationship between said first and said second phase coincides to a start of frame. Furthermore, the combination of *Maeda et al Timmermans et al.*, either alone or in combination, do not .disclose, suggest or mention in any way whatsoever that the second variations have a first and a second phase such that a predetermined relationship between said first and said second phase coincides to a start of frame.

Regarding appealed claim 10

The examiner's answer alleges that Figure 3 and column 8, lines 36-65 of Maeda et al. disclose that the two phases of the second variations (the wobbling of borders 14, 15) coincide with a zero crossing. The appellants, respectfully, point out that there are no zero crossings discussed with respect to Figure 3 or in column 8, lines 36-65 of Maeda et al. The appellants respectfully, point out that Maeda et al do not disclose, suggest or mention in any way whatsoever that the second variations have a first and a second phase such that a predetermined relationship between said first and said second phase coincides to a zero crossing.

Furthermore, the combination of Maeda et al Timmermans et al., either alone or in

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combination, do not .disclose, suggest or mention in any way whatsoever that the second variations have a first and a second phase such that a predetermined relationship between said first and said second phase coincides to a zero crossing.

Regarding appealed claim 11

In response to the appellants' arguments that Maeda et al. do not disclose, suggest the predetermined variation pattern allows sampling of the second variations at twice the frequency of the second variation, the examiner's answer alleges that Maeda et al. disclose the phase of the second variation differing by 180° within respect to the first variation. The appellants respectfully point out that column 7, line 22 to column 8, line 35 of Maeda et al. discloses that the second variation pattern formed by the borders 14, 15 of tracks 270 within Maeda et al. are 180° out of phase for a logical "0" address bit versus a logical "1" address bit. The appellants respectfully point out that Maeda et al. clearly disclose that opposite borders 14 and 15 should invariably have an orthogonal relationship and be set to lag or lead each other by 90° (see column 7, lines 47-53). Therefore, the phase relationships of the opposite borders 14, 15 as taught by Maeda et al. are never 180° out of phase with each other. Accordingly, the comments within the examiner's answer and this rejection are based upon a false premise and should be reversed. There is no disclosure or suggestion for a predetermined variation pattern that allows sampling of the second variations at twice the frequency of the second variations within Maeda et al. or Timmermans et al., either alone or in combination.

Regarding appealed claim 12

In response to the appellants' arguments that *Maeda et al.* do not disclose, suggest that the second variations have a first and a second phase such that a predetermined relationship between the first and the second phase coincides to a start of frame, the examiner's answer alleges that *Maeda et al.* disclose that tracks divided into blocks including frames of a predetermined number of bits and that Figure 2 shows the predetermined relationship between the firs and second phase

predetermined relationship between the first and the second phase coincides to a start of frame, the examiner's answer alleges that *Maeda et al.* disclose that tracks divided into blocks including frames of a predetermined number of bits and that Figure 2 shows the predetermined relationship between the firs and second phase that coincides to a start of frame. The appellants, respectfully, point out the Figure 2 of *Maeda et al.* do not disclose, suggest or mention in any way, whatsoever, that the second variations have a first and a second phase such that a predetermined relationship between said first and said second phase coincides to a start of frame.

The examiner's answer further states that Figure 3 and column 8, lines 36-65 of *Maeda et al.* disclose that the two phases of the second variations (the wobbling of borders 14, 15) coincide with a zero crossing. The appellants, respectfully, point out that there are no zero crossings discussed with respect to Figure 3 or in column 8, lines 36-65 of *Maeda et al.* The appellants respectfully, point out that *Maeda et al* do not disclose, suggest or mention in any way whatsoever that the second variations have a first and a second phase such that a predetermined relationship between said first and said second phase coincides to a start of frame.

Maeda et al. or Timmermans et al., either alone or in combination do not disclose, suggest or mention in any way whatsoever that the second variations have a first and a second phase such that a predetermined relationship between said first and said second phase coincides to a start of frame.

Regarding appealed claim 13

The examiner's answer alleges that Figure 3 and column 8, lines 36-65 of Maeda et al. disclose that the two phases of the second variations (the wobbling of borders 14, 15) coincide with a zero crossing. The appellants, respectfully, point out that there are no zero crossings discussed with respect to Figure 3 or in column 8, lines 36-65 of Maeda et al. The appellants respectfully, point out that Maeda et al do not disclose, suggest or mention in any way whatsoever that the second variations have a first and a second phase such that a predetermined relationship between said first and said second phase coincides to a zero crossing. Maeda et al.

III. Conclusion

In summary, the examiner's rejections of the claims are believed to be in error for the reasons explained above. The rejections of each of claims 1-16 should be reversed.

Respectfully submitted,

James D. Leimbach Attorney for Appellants Registration No. 34,374

Telephone: 585-381-9983 Facsimile: 585-381-9983